

## CLAIMS

1. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis an effective amount of L-carnitine or of a pharmaceutically acceptable salt thereof.
2. The method of claim 1, wherein the administration is by the intravenous route.
3. The method of claim 1, wherein the administration is by the peritoneal route.
4. The method of claim 1, wherein from about 10 to about 20 mg/kg body weight of carnitine, calculated as L-carnitine, is administered into a venous return line after a dialysis session.
5. The method of claim 4, wherein the treatment is repeated twice a week every 44 hours, then after 68 hours.
6. The method of claim 5, wherein the treatment is continued for 3-4 weeks, monitoring pre-dialytic levels of carnitine.
7. The method of claim 6, wherein pre-dialytic levels of carnitine are monitored.
8. The method of claim 7, wherein pre-dialytic levels of carnitine are equal or lower than 40-50 $\mu$ M.
9. The method of claim 4, wherein a maintenance dosage is provided, administering a dose of 5 mg/kg of carnitine.

10. The method of claim 9, wherein the maintenance dosage is repeated twice a week every 44 hours, then after 68 hours.

11. The method of claim 1, wherein carnitine fumarate is the pharmaceutically acceptable salt.

12. The method of claim 11, wherein the patient is affected by hypervolemic heart.

13. The method of claim 11, wherein the patient is affected by diabetes.

14. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis into a venous return line after a dialysis session an amount of L-carnitine or of a pharmaceutically acceptable salt thereof effective to restore a level of carnitine in the patient to a pre-dialytic level, and thereafter reducing the amount of carnitine administered to a level sufficient to maintain carnitine levels to the pre-dialytic level.

15. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis into a venous return line after a dialysis session from about 10 to about 20 mg/kg body weight of carnitine, calculated as L-carnitine, or of a pharmaceutically

acceptable salt thereof to restore a level of carnitine in the patent to a pre-dialytic level, and thereafter reducing the amount of carnitine administered to a level sufficient to maintain carnitine levels to the pre-dialytic level

5 16. The method of claim 15, wherein the treatment to achieve pre-dialytic levels is on a weekly basis repeated twice a week every 44 hours, then after 68 hours.

17. The method of claim 16, wherein the treatment is continued for 3-4 weeks.

10 18. The method of claim 14 or 15, wherein pre-dialytic levels of carnitine are equal or lower than 40-50 $\mu$ M.

19. The method of claim 14 of 15, wherein a maintenance dosage of about 5 mg/kg of carnitine is administered